

## DEPARTMENT OF THE INTERIOR

## Fish and Wildlife Service

## 50 CFR Part 17

RIN 1018-AB66

**Endangered and Threatened Wildlife and Plants; Reclassification of the Plant *Pediocactus Sileri* (Siler Pincushion Cactus) From Endangered to Threatened Status**

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

**SUMMARY:** The Fish and Wildlife Service (Service) concludes that the plant *Pediocactus sileri* (Siler pincushion cactus) should be reclassified from endangered to threatened status under the Endangered Species Act of 1973 (Act), as amended. The change in classification reflects an improved understanding of the species' status and the fulfillment of reclassification criteria as stated in the Siler Pincushion Cactus Recovery Plan. Delisting is not justified at this time. Reclassification to threatened status will not alter most protections for this species under the Act. However, some collecting and malicious destruction protections provided to endangered plants by the Act's 1988 amendments have not been extended through regulation to threatened plants, and seeds of cultivated specimens of threatened plants may be sold without a permit, provided a statement of "cultivated origin" appears on their containers.

**EFFECTIVE DATE:** January 26, 1994.

**ADDRESSES:** The complete file for this rule is available for inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Arizona Ecological Services State Office, 3616 West Thomas Road, suite 6, Phoenix, Arizona 85019.

**FOR FURTHER INFORMATION CONTACT:** Bruce Palmer (see ADDRESSES) at 602/379-4720.

**SUPPLEMENTARY INFORMATION:****Background**

*Pediocactus sileri* (Siler pincushion cactus) grows on gypsum soils in a scenic area of southwestern Utah and northwestern Arizona. When mature, this globose or cylindrical cactus is about 10–13 centimeters (cm) (4–5 inches (in)) tall and has spines that almost match the gray soil where it commonly occurs. The central spines, which are usually less than 3.2 cm (1.25 in) long, have a purplish or black tip when young and point upward. The

flowers are yellow and appear in the spring. Plants may be single-stemmed or clustered.

*Pediocactus sileri* is found on gypsiferous clay to sandy soils apparently high in soluble salts (Hughes 1991). Plants occur on soils derived from the Moenkopi Formation. About 90 percent of known plants occur on the Shnabkaib Member of the formation (Gierisch 1989). The grayish Shnabkaib Member is composed of 65 percent siltstone, 25 percent gypsum, and 10 percent limestone and dolomite (Stewart et al. 1972). Most of the remaining plants are found on the Middle Red Member of the formation, which is a reddish siltstone with thin to thick layers of gypsum. Plants can be found growing on soil that ranges from shallow to 56 cm (22 in) deep (Gierisch 1981).

*Pediocactus sileri* populations occur in a variety of plant communities. Most commonly, the species is found in the Great Basin Desert Shrub Biotic Community. At one low elevation site, the surrounding vegetation is Mohave Desert Scrub. The higher elevation sites are located within the Great Basin Conifer Woodland and Plains, and the Great Basin Grassland (Hughes 1991). The species is found at elevations of 850–1,650 meters (2,800–5,400 feet).

When the species was listed as endangered in 1979 (44 FR 61786), the amount of habitat was unknown but presumed to be small. The total amount of occupied habitat remains unknown, but extensive surveys conducted by the Bureau of Land Management (BLM), Arizona Strip District (Hughes 1991), have documented the species on 17,000 hectares (ha) (42,100 acres (ac)) of habitat. The species will likely be found outside this area. The Moenkopi Formation covers approximately 134,000 ha (330,000 ac) in this area of the Arizona Strip; an unknown fraction of this substrate type is potential habitat for *Pediocactus sileri*.

At the time the plant was proposed for listing, fewer than 1,000 individuals were thought to exist (Phillips et al. 1979). Since that time many more plants have been discovered. *Pediocactus sileri* has a distribution typical of many plant species—a high density in some areas (Gierisch 1981, Hughes 1991) and a low density in others (Gierisch 1981; L. Hughes, BLM, St. George, Utah, pers. comm. 1988). Low density areas may support approximately 0.04–0.12 *P. sileri* plants per hectare (0.02–0.05 plants per acre) (L. Hughes, pers. comm. 1992). By contrast, the high density population at Warner Ridge contains 37–57 plants per hectare (15–23 plants per acre) (Gierisch 1989). A map

prepared by BLM in 1988 shows three high density areas, widely scattered across the Arizona Strip. These populations ranged in number from 2,691 plants to 3,775 (an underestimate because all plants were not counted). The three dense populations occupy an area of about 1,700 ha (4,100 ac).

The majority of *Pediocactus sileri* habitat is managed by the Arizona Strip and Cedar City districts of BLM. Some habitat occurs on the Kaibab-Paiute Indian Reservation, but no surveys have occurred there. A small amount of habitat is privately owned.

The 1979 final rule to list *Pediocactus sileri* as endangered identified gypsum mining, off-highway vehicle (OHV) use, road construction, illegal collection, livestock grazing, construction of the proposed Warner Valley Power Plant and associated structures, and the inadequacy of regulatory mechanisms as threats to the species. The Service believed that the specialized soil type, small numbers of individuals, population disjunction, and possibly a restricted gene pool could have intensified adverse effects on *P. sileri* and its habitat. Since the species was listed, a number of recovery activities have occurred, including the completion of some management documents.

In 1985, the BLM established permanent *Pediocactus sileri* monitoring plots to collect demographic and phenological data and determine the status of the monitored populations. The BLM has reported these data annually to the Service and has most recently summarized them in Hughes (1991). Some data analysis has been done, but more sophisticated methods should be employed to determine the long-term viability of the monitored populations.

The Siler Pincushion Cactus Recovery Plan was finalized in 1986 (U.S. Fish and Wildlife Service 1986). The plan set forth the following five reclassification criteria—(1) known populations should be censused and mapped; (2) the BLM should establish monitoring plots that can be relocated and census these at least annually; (3) the BLM should develop an approved Habitat Management Plan (HMP), which includes steps to ensure the protection of the species; (4) the BLM should develop a Mineral Feasibility Report assessing the present and potential value of the habitat for mining of gypsum, selenites, and uranium; and (5) the BLM should administer mining claims within known populations, mitigate adverse effects, and initiate section 7 consultations when necessary. The necessary criteria for delisting are—

(1) demonstration of long-term population stability, (2) demonstration that reclassification criteria are suitable, (3) continued assurance of no mining or new claims in known habitat, and (4) implementation of actions identified in the HMP.

The Arizona Strip and Cedar City districts of the BLM finalized the *Pediocactus sileri* HMP in 1987 (U.S. Department of Interior (USDI) Bureau of Land Management 1987). Planned actions in the HMP included continuing monitoring studies, closing and signing the Warner Ridge/Beehive Dome area to OHVs, building an enclosure fence around a specific dense population, evaluating all surface-disturbing activities through the National Environmental Policy Act process, and placing raptor roost poles where small mammal herbivory is a problem.

In 1990, the Arizona Strip District and Dixie Resource Area (part of the Cedar City District) of the BLM completed their respective Resource Management Plans (RMPs) and Final Environmental Impact Statements (USDI Bureau of Land Management 1990a, 1990b). These RMPs guide the management of *Pediocactus sileri* habitat at a programmatic level, and incorporated and formalized the management direction for *P. sileri* from the 1987 HMP. The HMP, as an implementation plan, identified specific project actions. Both the Arizona Strip District and the Dixie Resource Area RMPs designate Areas of Critical Environmental Concern (ACECs), which have management prescriptions designed for conservation of *P. sileri* and other resource values. Additional resource management decisions made in the RMPs include establishing OHV management areas, setting livestock management goals, and providing guidelines for locatable and other mineral materials management. The specific management direction given by the RMPs and its effect on *P. sileri* are discussed below where appropriate.

#### Summary of Comments and Recommendations

In the March 10, 1993, proposed rule (58 FR 13244) and associated notifications, all interested parties were requested to submit factual reports or information that might contribute to development of a final rule. Appropriate state and Federal agencies, county governments, scientific organizations, and other interested parties were contacted and requested to comment. A newspaper notice was published in The Daily Spectrum, St. George, Utah, on March 23, 1993, which invited general public comment.

A total of seven comments were received. Five commenters supported the reclassification, one commenter opposed the reclassification and recommended retaining endangered status, and one respondent did not express a position. Issues raised by commenters are discussed below.

**Issue 1:** One commenter expressed concern that the total number of *Pediocactus sileri* populations remains very small despite the BLM survey work, which successfully located more plants.

**Response:** While only three high density populations are known, the BLM surveys have demonstrated a more complete geographic representation of the species across its limited range than was known at the time of the original listing. The three populations are extensive and the surveys noted additional areas with low density populations.

**Issue 2:** Three commenters recognized that various threats to the species remain.

**Response:** This situation is acknowledged by the Service and is reflected, in part, in the reclassification rather than delisting of the species. However, the increased protection offered some populations through the designation of ACECs and other land management prescriptions (see the "Background" section and Factor A in the "Summary of Factors Affecting the Species" section) and the documentation of higher numbers of plants has diminished the relative severity of these threats.

#### Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that *Pediocactus sileri* should be reclassified from endangered to threatened status. Procedures found at section 4(a)(1) of the Act and regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act were followed. A species may be listed or reclassified as endangered or threatened due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Pediocactus sileri* (Engelm. ex Coult.) L. Benson (Siler pincushion cactus) are as follows:

**A. The present or threatened destruction, modification, or curtailment of its habitat or range.** The habitat of *Pediocactus sileri* occurs in the Arizona Strip, a remote and essentially uninhabited area in extreme northern Arizona. Commercial uses of *P. sileri* habitat include recreation,

livestock grazing, and mining. Habitat loss and degradation due to road building, housing and commercial development, off-highway traffic, and other sources is likely to increase as human populations increase in the nearby towns of St. George and Kanab, Utah, and Fredonia, Arizona.

Off-highway traffic is adversely affecting *Pediocactus sileri* and its habitat at a few localities, including Atkin Well, the Warner Ridge/Fort Pierce area near St. George, Utah, and the area near Fredonia, Arizona, and Kanab, Utah. The convenient location of the latter two areas, the gently rolling hills, and sparse vegetation make these localities attractive sites for OHV users. Observations and data from monitoring plots indicate that few *P. sileri* deaths were directly caused by OHVs, but that the OHV traffic is fairly frequent. Gierisch (1980) found that 8 out of 1,153 cacti were killed by OHV activity on Warner Ridge. In 1985, 1 plant was killed and 6 plants were run over by OHVs out of 7,000 plants counted (USDI Bureau of Land Management 1985). Although Gierisch (1989) found no *P. sileri* mortality due to OHVs in plots on Warner Ridge, he observed 5–10 injured or destroyed plants outside the plots. He also noted that 33 of 60 plots contained single tracks of OHVs, and 5 of the 60 plots contained OHV trails that had been used repeatedly. A site near Kanab/Fredonia is heavily impacted by OHVs and other recreational uses, but no data are available on their direct or indirect effects on the cactus.

The BLM Arizona Strip District RMP and Final Environmental Impact Statement (USDI Bureau of Land Management 1990a) and Dixie Resource Area RMP and Final Environmental Impact Statement (USDI Bureau of Land Management 1990b) contain OHV designations for the District and Resource Area. Off-road traffic is permitted to varying levels throughout the range of *Pediocactus sileri*. The Warner Ridge area is closed to OHV traffic. This area, which also contains another endangered plant, is not fenced to exclude OHVs, but signs have been placed every 0.4 kilometer (0.25 mile). Nearby, in the Fort Pierce area, where a dense population of *P. sileri* occurs, the BLM permits OHV traffic on designated roads and trails. On 320 ha (800 ac) east of Kanab and Fredonia, in a dense population of *P. sileri*, OHV traffic is unrestricted. The Rhino Rally, an OHV event, takes place within the central habitat of *P. sileri*, in an area designated as an "OHV event area" in the Arizona Strip District RMP. The BLM limits the Rhino Rally to 300 entrants and restricts the event primarily to roads and washes.

Livestock grazing occurs throughout the habitat of *Pediocactus sileri*. The Service presumes that the BLM has not changed term permits, stocking rates, or grazing systems since the species was listed, because no formal or informal section 7 consultations regarding existing range management or a change in management have occurred. In addition, livestock waters have not been moved away from dense *P. sileri* populations. The Service cannot assess the effects of livestock on *P. sileri* on the Kaibab-Paiute Indian Reservation due to a lack of information.

Because forage is very sparse on soils preferred by *Pediocactus sileri*, there is little grazing if the areas are relatively distant from water sources. In these areas, little trampling occurs and *P. sileri* plants can be found in open, unprotected microsites (Gierisch and Anderson 1980). Gierisch (1989) stated that no *P. sileri* plants were destroyed due to livestock trampling on Warner Ridge. In earlier studies, he found 6 plants out of 1,153 were killed by livestock (Gierisch 1980). Gierisch (1989) found livestock tracks in 90 percent of the plots on Warner Ridge, indicating that cattle do travel through the area.

Hughes (1991) also found that livestock rarely trampled mature plants in monitoring plots. He speculated (pers. comm. 1992) that mature cacti are large enough that cattle walk around them rather than step on them. However, seedlings and juvenile plants may be too small to be seen and avoided.

At watering areas where livestock concentrate, damage or destruction of *Pediocactus sileri* is "undoubtedly severe" (Gierisch and Anderson 1980). At Atkin Well, where livestock are severely affecting the habitat, *P. sileri* plants grow in the shrub understory or along drainage slopes, areas protected from the trampling of cattle moving to and from this water source (Gierisch and Anderson 1980). Atkin Well and Lytle Spring populations showed a size class distribution with a small number of short cacti and a large number of tall cacti. These populations were judged to be of "special concern" (USDI Bureau of Land Management 1985).

Erosion has been identified as a source of mortality for *Pediocactus sileri* (Gierisch 1981, Hughes 1991). Because the substrate is erodible, a low rate of mortality due to erosion is expected and probably natural. However, OHV traffic, roads, overgrazed habitat, or areas of livestock concentration may lead to increased erosion, resulting in increased cactus mortality rates and loss of habitat.

In 1989, the Arizona Department of Agriculture, U.S. Department of Agriculture Animal and Plant Health Inspection Service (APHIS), and local ranchers proposed a large-scale (approximately 325 square kilometer, or 125 square mile) application of general pesticides to control a grasshopper infestation. Although the BLM disapproved the project, the Service anticipates that rangeland pesticide applications will be proposed in the future.

Through funding from APHIS, the U.S. Department of Agriculture Bee Biology Lab in Logan, Utah, has conducted research to understand the potential effects of rangeland pesticides on endangered and threatened plants. This research has improved our understanding of the pollination and reproductive ecology of *Pediocactus sileri*. Tepedino (1990) reported that the species is pollinated by small native bees; two of the bees are undescribed and one is very rare.

Mineral exploration and development and oil and gas leasing may contribute to the loss and degradation of *Pediocactus sileri* habitat. Currently, these adverse effects appear to be occurring at a slow rate and affecting small amounts of habitat or numbers of plants. One Mineral Feasibility Report (Swapp 1985) addressed the threat of uranium mining within high density *P. sileri* habitat and concluded that uranium exploration or mining was extremely unlikely there. Another Mineral Feasibility Report (Cormier 1985) for the Warner Ridge area did not specifically address uranium mining feasibility. However, in a survey of 246 Mining Plans of Operation (MPO) for uranium mining filed between 1980 and 1985, the BLM found that 165 occurred outside potential habitat of *P. sileri* (USDI Bureau of Land Management 1985). Of the remaining 81 MPOs occurring within potential habitat, 51 were surveyed and did not contain *P. sileri*. The remaining 30 sites within potential habitat were surveyed and found to contain *P. sileri*; projects were modified to avoid directly affecting the plants. An average of 2 ha (5 ac) were disturbed at each of the 30 sites within potential habitat. Activity has taken place within low density *P. sileri* habitat, except for one core drilling in high density habitat. Wenrich and Sutphin (1988) identified low density *P. sileri* habitat as having potential for economically important uranium deposits.

Gypsum mining or exploration is unlikely to occur in the Warner Ridge or the Lost Spring Mountain habitats of *Pediocactus sileri* (Cormier 1985, Swapp

1985). The BLM believes mining gypsum is economically feasible if the gypsum (calcium sulfate) content exceeds 90 percent (Cormier 1985, Swapp 1985). The gypsum content of the Shnabkaib and Middle Red Members of the Moenkopi Formation has been estimated at 3–5 percent (Swapp 1985) or up to 25 percent (Stewart et al. 1972). Both estimates are well below the level needed to sustain an economically viable operation.

Mineral exploration and development is permitted to occur within the five ACECs designated to provide special management prescriptions for *Pediocactus sileri* (USDI Bureau of Land Management 1990a, 1990b). If mineral exploration and development is proposed within ACECs, the BLM requires a plan of operation and special mitigation. These requirements do not necessarily apply outside of ACECs. Therefore, not all habitat or populations are covered by this protection.

Oil and gas exploration or drilling is another potential threat to *Pediocactus sileri*, although the current threat is minor. Essentially all areas within the Moenkopi Formation are under oil and gas leases (USDI Bureau of Land Management 1985). As recently as 1990 the BLM offered at least one tract containing *P. sileri* for a competitive oil and gas lease sale (BLM Minerals staff, Arizona Strip District, St. George, Utah, pers. comm. 1990). However, there are no producing oil wells nor any history of wells in the Arizona Strip District or southwestern Utah (USDI Bureau of Land Management 1985).

In summary, current mining and mineral exploration and oil and gas leases pose a minor threat to *Pediocactus sileri*. The probability of gypsum mining and active oil and gas pumping appears small. Uranium exploration is occurring and has already impacted some habitat. Although the current economic situation seems to have slowed uranium exploration, the future is uncertain.

**B. Overutilization for commercial, recreational, scientific, or educational purposes.** Despite the legal protection offered by the Act and the Arizona Native Plant Law (Arizona Revised Statutes Chapter 7, Title 3, Article 1), *Pediocactus sileri* is collected by cactus enthusiasts for commercial purposes and private interest. Steve Brack (Mesa Gardens, Belen, New Mexico, pers. comm. 1992) is familiar with the worldwide cactus trade; he believes that cultivated and wild-collected plants of this species are rare in the cactus trade because it has a reputation for being hard to grow. He estimates that 99 percent of transplanted plants will die

within 2 years. Seeds germinate readily, but due to a narrow tolerance for soil type and environmental conditions, the plants will mature only with skillful cultivation. Grafting, a technique commonly used to commercially propagate the endangered *Pediocactus bradyi*, is not commonly used with *P. sileri* because the latter species is too large and slow growing.

Brack (pers. comm. 1992) noted that *Pediocactus sileri* seeds are readily available in the commercial trade; he assumed the seeds are taken from wild populations. He estimated that a collector could take 5,000 seeds from a dense population in one afternoon. The Service does not have the information needed to assess the degree to which seed collecting is affecting populations.

Although serious hobbyists and professional collectors apparently avoid taking living plants from the wild, other collectors, such as the occasional tourist, resident, or unscrupulous seller, could adversely affect populations. The effects of this activity are very difficult to quantify, but are considered minor at this time.

**C. Disease or predation.** Various botanists have noted mortality of *Pediocactus sileri* due to disease, insects, and rodents. Within study plots, Gierisch (1989) noted that 28–32 percent of all stems were dead; he believed the mortality was due to disease and predation. Hughes (1991) reported that the most common cause of *P. sileri* mortality was herbivory. Rodents and rabbits apparently find the plants palatable, particularly during years of below-average rainfall when other food and water sources are scarce. Small mammals may attack from the top or from underground and consume the whole plant (Gierisch 1981).

In at least one case, data indicate that *Pediocactus sileri* mortality from small mammal populations may be affected by management practices. Plants inside a fenced area excluding cattle were more likely to die from small mammal herbivory than plants outside the enclosure (Hughes 1991). Hughes (pers. comm. 1988) speculated that small mammals preferred the habitat inside the enclosure because it had greater plant cover and food.

Brack (1983) noted heavy insect damage to a *Pediocactus sileri* population. Insects had eaten the cortical tissues and roots of about 80 percent of the plants. He believed the damaged plants would die.

Although insects, disease, and small mammal herbivory may appear to be natural causes of mortality, we do not know if the current rates of disease or predation are at natural levels or are

imbalanced for some reason. Analysis of data from long-term monitoring should indicate whether recruitment rates in populations with disease or predation are sufficient to maintain viable populations.

**D. The inadequacy of existing regulatory mechanisms.** *Pediocactus sileri* is currently protected by the Act and is contained in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (16 U.S.C. 1538(c)). It is also protected from commercial use by the Arizona Native Plant Law (A.R.S. §§ 3–901 et seq.). The reclassification to threatened status will not alter most protections afforded this species under these regulatory mechanisms. Existing regulatory mechanisms determined necessary to protect this species and its habitat will remain in effect.

The Endangered Species Act amendments of 1988 provided several new protections for endangered plants that have not been extended through regulation to threatened plants. The 1988 amendments added additional provisions to section 9(a)(2)(B) of the Act to make it a violation to maliciously damage or destroy any endangered plant in any area under Federal jurisdiction, or to remove, cut, dig up, or damage or destroy any endangered plant on any non-Federal area in knowing violation of any law or regulation of any state or in the course of any violation of a state criminal trespass law. Upon reclassification to threatened status, it will still be a violation of the Act to remove and reduce to possession *Pediocactus sileri* from areas under Federal jurisdiction (50 CFR 17.71(a)). This prohibition should adequately protect *P. sileri* because no instances of malicious damage or destruction (i.e., vandalism) to *P. sileri* have been reported and few *P. sileri* plants are known from non-Federal lands.

Seeds from endangered plants are subject to the trade prohibitions of section 9(a)(2) of the Act. However, seeds from cultivated specimens of threatened plants are exempt from these trade prohibitions provided that a statement of "cultivated origin" appears on their containers (50 CFR 17.71(a)). This should have little effect on trade in *Pediocactus sileri* seeds. Because the plant is difficult to grow in cultivation, few seeds of cultivated origin are available for sale. The sale of wild-collected seeds will continue to be prohibited.

**E. Other natural or manmade factors affecting its continued existence.** The long-term viability of populations of this species is still uncertain. Since 1985, the BLM Arizona Strip District has been

collecting demographic data in four dense population areas across the range of this species. A population viability analysis could probably indicate whether the dense population areas are reproducing sufficiently to maintain population size.

The Service has carefully assessed the best scientific and commercial information available regarding past, present, and future threats faced by this species in determining to make this rule final. Based on this evaluation, the preferred action is to reclassify *Pediocactus sileri* from endangered to threatened status. New information gathered by the BLM as well as recovery efforts for the species have changed our understanding of the range, abundance, and magnitude and relative importance of threats to *P. sileri*. Although the species is more abundant than originally believed in 1979, only three large populations are known. We do not know whether the species is able to maintain stable populations given current habitat conditions, but the BLM is accumulating data that will assist in that determination. The remaining manageable threats to the species include livestock grazing and associated developments, OHV traffic, pesticide applications, and minerals exploration. With more plants known to exist, we now believe the magnitude of threats to be less important than when the species was listed.

Critical habitat for *Pediocactus sileri* was not designated in 1979 when the species was listed because the Service believed the action was not prudent. The Service continues to believe designating critical habitat is not prudent. As discussed under Factor B in the "Summary of Factors Affecting the Species," *P. sileri* is subject to taking, an activity difficult to prevent and only regulated by the Act with respect to threatened plants in cases of removal and reduction to possession of such plants from lands under Federal jurisdiction. These provisions are difficult to enforce, and publication of critical habitat descriptions and maps would make *P. sileri* more vulnerable and increase enforcement problems. Therefore, it remains not prudent to determine critical habitat for *P. sileri*.

#### Effects of Rule

This rule changes the status of *Pediocactus sileri* from endangered to threatened. *Pediocactus sileri* is no longer considered to be in imminent danger of extinction throughout a significant portion of its range. Reclassification has little effect on regulations regarding protection and recovery of the species. Protection of

threatened species under section 7 of the Act is essentially the same as for endangered species. Protection for threatened species under section 9 of the Act is much the same as for endangered species except for those items discussed under Factor D in the "Summary of Factors Affecting the Species" section of this rule. Recovery provisions are the same for threatened species as for endangered species.

This action is not an irreversible commitment on the part of the Service and reclassifying *Pediocactus sileri* to endangered would be possible should changes in management, habitat, or other factors occur that alter the species' present likelihood of survival and recovery.

#### National Environmental Policy Act

The Service has determined that Environmental Assessments and Environmental Impact Statements, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the Federal Register on October 25, 1983 (48 FR 49244).

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U.S. Fish and Wildlife Service. 1986. Siler Pincushion Cactus Recovery Plan. USDI Fish and Wildlife Service, Albuquerque, New Mexico. 57 pp.  
Wentch, K.J., and H.H. Sutphin. 1988. Recognition of breccia pipes in northern Arizona. Arizona Bureau of Geology and Mineral Technology 18:1-5.

#### Authors

The primary authors of this rule are Bruce Palmer and Sue Rutman (see ADDRESSES section).

#### List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

#### Regulation Promulgation

Accordingly, part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, is amended as set forth below:

#### PART 17—[AMENDED].

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1544; 16 U.S.C. 4201-4245; Pub. L. 99-625, 100 Stat. 3500; unless otherwise noted.

2. Amend § 17.12(h) by revising the entry for *Pediocactus sileri*, under the family Cactaceae, to read as follows:

§ 17.12 Endangered and threatened plants.

(h) \* \* \*

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
Cactaceae—Cactus family:						
<i>Pediocactus sileri</i> (= <i>Echinocactus s.</i> , <i>Utahia s.</i> )	Siler pincushion cactus.	U.S.A. (AZ, UT) ..	T .....	64,524	NA	N.

Dated: November 22, 1993.  
Richard N. Smith,  
Acting Director, Fish and Wildlife Service.  
[FR Doc. 93-31426 Filed 12-23-93; 8:45 am].  
BILLING CODE 4310-85-P

#### 50 CFR Part 17

RIN 1018-AB83

#### Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Relict Darter and Bluemask (=Jewel) Darter

AGENCY: Fish and Wildlife Service, Interior

#### ACTION: Final rule.

**SUMMARY:** The Service determines endangered status for the relict darter (*Etheostoma chienense*) and bluemask (=jewel) darter (*Etheostoma (Dorostoma)* sp.) under the Endangered Species Act of 1973, as amended (Act). The relict darter, which is endemic to the Bayou du Chien drainage in western Kentucky